5.0 Trauma

I. Number of tasks to master = 612

II. Intended Outcome: Given the information in this module about trauma, student will be able to perform the following tasks with 85% accuracy on the didactic exam.

III. Tasks:

5.01 Bleeding

A. List the five structures of the circulatory system.

1. Heart.
2. Arteries.
3. Capillaries.
4. Veins.
5. Blood.

B. Define the function of the circulatory system.

1. To carry oxygen enriched blood and nutrients to all parts of the body and return with waste products.

C. List four precautions that must be routinely taken to avoid skin and mucous membrane exposure to bodily fluids. (Body substance isolation)

1. Eye protection.
2. Gloves.
3. Gown Mask.
4. Hand washing following each run.

D. List five indications of determining severity of blood loss.

1. The sudden loss of one liter of blood in an adult patient is considered serious.
2. The sudden loss of ½ liter (500 cc) of blood in a child is considered serious.
3. The sudden loss of 100.200 cc of blood in an infant is considered serious.
4. The severity of blood loss must be based on the patient's signs and symptoms of shock, the bleeding is to be considered serious.
5. The natural response to bleeding is blood vessel contractions and clotting; however a serious injury may prevent effective clotting from occurring and is considered serious.

E. Identify four indications of arterial bleeding.

1. Blood spurts from would.
2. Bright, red, oxygen rich blood.
3. Difficult to control due to arterial pressures.
4. Spurting decreases with decrease in blood pressure.

F. Identify three indications of venous bleeding.

1. Blood flows at a steady stream.
2. Dark, oxygen poor blood.
3. Can be profuse, but is easier to control due to lower venous pressures.

G. Identify three indications of capillary bleeding.

1. Blood oozes from wound.
2. Blood is dark red in color.
3. Bleeding often clots spontaneously.

H. Identify two procedures prior to caring for external bleeding.

1. Body substance isolation.
2. Maintain airway/artificial ventilation.

I. Identify five procedures for controlling external bleeding.

1. Apply fingertip pressure directly on the point of bleeding.
2. Elevation of a bleeding extremity may be used in conjunction with fingertip direct pressure.
3. Packing wound with sterile dressing.
4. Direct hand pressure.
5. Pressure points.

J. Identify three procedures to help control external bleeding if direct pressure fails.

1. Splints.
2. Pressure splints.
3. Tourniquet.

K. Identify how a splint can help control bleeding.

1. Reduction of motion of bone ends will reduce the amount and aggravation of tissue damage and bleeding associated with a fracture.

L. Identify two types of pressure splints.

1. Air splints.
2. MAST (Pneumatic anti-shock garment).

M. Explain why a tourniquet should be used only as a last resort.

1. Application of a tourniquet can cause permanent damage to nerves, muscles and blood vessels resulting in the loss of an extremity.

N. List five precautions when using a tourniquet.

1. Use a wide bandage and secure tightly.
2. Never use a rope, wire, belt or any other material that may cut into the skin and underlying tissue.
3. Do not remove or loosen the tourniquet once it is applied unless directed to do so by medical direction.
4. Leave tourniquet in open view.
5. Do not apply a tourniquet directly over a joint, but as close to the injury as possible.

O. Identify six potential causes of bleeding from the nose, ear or mouth.

1. Injured skull.
2. Facial Trauma.
3. Digital Trauma (nose picking).
4. Sinusitis and other upper respiratory tract infections.
5. Hypertension (high blood pressure).
6. Coagulation disorders.

P. Explain why you should not attempt to stop the flow of blood or clear fluid coming form the nose or ears as a result of trauma.

1. Could increase intracranial pressure and could force bone fragments into the brain and cause further damage or infection.

Q. Explain the three steps on controlling epistaxis (nose bleed).

1. Place the patient in a sitting position leaning foreword.
2. Apply direct pressure by pinching the fleshy portion of the nostrils together.
3. Keep patient calm and quiet.

R. Explain four objectives when trying to determine the severity of internal bleeding.

1. Internal bleeding can result is severe blood loss with resultant shock and subsequent death.

2. Injured or damaged internal organs commonly lead to extensive bleeding that is concealed.
3. Painful, swollen, deformed (fractured) extremities may also lead to serious blood loss.
4. Suspicion and severity of internal bleeding should be based on the mechanism of injury and clinical signs and symptoms.

S. Identify five mechanisms of blunt trauma causing internal bleeding.

1. Fall
2. Motorcycle crashes.
3. Pedestrian impacts.
4. Automobile collisions.
5. Blast injuries.

T. Identify five signs and symptoms of internal bleeding.

1. Pain, tenderness, swelling or discoloration of suspected site of injury.
2. Bleeding from the mouth, rectum, vagina or other orifice.
3. Vomiting bright red blood or dark coffee ground colored blood.
4. Dark, tarry stools or stools with bright red blood .
5. Tender, rigid, and /or distended abdomen.

U. Identify 10 late signs and symptoms of hypovolemic shock (hypoperfusion).

1. Anxiety, restlessness, combativeness or altered mental status.
2. Weakness, faintness or dizziness.
3. Increased thirst.
4. Shallow rapid breathing.
5. Rapid weak pulse.
6. Pale, cool clammy skin.
7. Capillary refill greater than two seconds – infants and child patients only.
8. Dropping blood pressure (late sign).
9. Dilated pupils that are sluggish to respond.
10. Nausea and vomiting.

V. Identify the five steps in treating for internal bleeding.

1. Body substance isolation.
2. Maintain airway/artificial ventilation.
3. Administer oxygen if not done during the initial assessment.
4. If bleeding is suspected in an extremity, control bleeding by direct pressure and application of a splint.
5. Immediate transport is critical for patient with signs and symptoms of shock (hyper-fusion).

5.02 Shock

A. Define Shock (hypoperfusion)

1. An inadequate perfusion of the cells with oxygen and nutrients and an inadequate removal of metabolic waste products, resulting in cell and organ malfunction and death.

B. Define Hypovolemic or Hemorrhagic Shock.

1. The loss of blood either internally or externally, causing decreased perfusion and circulating volume.

C. List three mental signs of shock.

1. Restlessness.
2. Anxiety.
3. Altered mental status.

D. List three peripheral perfusion signs of shock.

1. Delayed capillary refill greater than two seconds in normal ambient temperature-infant and child patients only.
2. Weak or absent peripheral pulses.
3. Pale, cool, clammy skin.

E. List three characteristic vital signs of shock.

1. Decreased blood pressure (late sign).
2. Increased pulse rate (early sign) weak and ready.
3. Increased respiratory rate that can be shallow, labored and irregular.

F. List four other signs and symptoms of shock

1. Dilated pupils.
2. Marked thirst.
3. Nausea, vomiting.
4. Pallor with cyanosis to the lips.

G. Describe how infants and children differ from adults in responding to shock.

1. They can maintain a normal blood pressure until more than half of their blood volume is gone, and then rapidly deteriorate.

H. List eight steps for the treatment of Hypovolemic or Hemorrhagic shock.

1. Body substance isolation.
2. Maintain airway/artificial ventilation.
3. Administer oxygen if indicated.
4. Apply MAST suit if pelvic injury is suspected without evidence of chest injury.
5. Elevate the lower extremities 8-12 inches, if no serious injury to head, chest, neck, or spine.
6. Splint any suspected bone or joint injuries.
7. Prevent loss of body heat by covering patient with a blanket when appropriate.
8. Immediate transport.

5.03 Soft Tissue Injuries

A. Define skin.

1. The largest organ in the body.

B. Describe the three major functions of the skin.

1. Protection: a barrier that keeps out germs, debris, and unwanted chemicals.
2. Water Balance: helps prevent water loss and stops environmental water from entering the body.
3. Temperature Regulation: sweat glands in the skin produce perspiration, which will evaporate and help cool the body.

C. List the three layers of the skin.

1. Epidermis.
2. Dermis.
3. Subcutaneous.

D. List three types of closed soft tissue injuries.

1. Contusion (bruise).
2. Hematoma.
3. Crushing injuries.

E. Give four characteristics of a contusion.

1. Epidermis remains intact.
2. Cells are damaged and blood vessels torn in the dermis.
3. Swelling and pain are typically present.
4. Blood accumulation causes discoloration.

F. Give four characteristics of a hematoma.

1. Collection of blood beneath the skin.
2. Larger amount of tissue damage as compared to contusion.
3. Larger vessels are damaged.
4. May lose one or more liters of blood.

G. List three concerns with a crushing injury.

1. Crushing force applied to body.
2. Can cause internal organ rupture.
3. Internal bleeding may be severe with shock.

H. List the five steps for treatment of a closed soft tissue injury.

1. Body substance isolation.
2. Proper airway/artificial ventilation/oxygenation.
3. If shock or internal bleeding is suspected use shock protocol.
4. Splint any painful, swollen, deformed extremity.
5. Transport.

I. List six types of open soft tissue injuries.

1. Abrasion.
2. Laceration.
3. Avulsion.
4. Penetration/puncture.
5. Amputations.
6. Crushing injuries.

J. Give three characteristics of an abrasion.

1. Outermost layer of skin is damaged by shearing forces.
2. Painful injury, even though superficial.
3. No or very little oozing of blood.

K. Give four characteristics of a laceration.

1. Break in skin of varying depth.
2. May be linear (regular) or stellate (irregular).
3. Caused by forceful impact with sharp object
4. Bleeding may be severe.

L. List the characteristic of an avulsion.

1. Flaps of skin or tissue are torn loose or pulled completely off.

M. Give four characteristics of a penetration/puncture wound.

1. Caused by sharp pointed object.
2. May be no external bleeding.
3. Internal bleeding may be severe.
4. Exit wound may be present.

N. Give two examples of a penetration/puncture wound.

1. Gun shot wound.
2. Stab wound.

O. Define amputation.

1. The surgical removal or traumatic severing of an external body part.

P. Define four characteristics of a crushing injury.

1. Damage to soft tissue and internal organs.
2. May cause painful, swollen, deformed extremities.
3. External bleeding may be minimal or absent.
4. Internal bleeding may be severe.

Q. Define eight steps for management of an open soft tissue injuries.

1. Body substance isolation.
2. Maintain proper airway/artificial ventilation/oxygenation.
3. Expose wound.
4. Control bleeding.
5. Prevent further contamination.
6. Apply dry sterile dressing to the wound and bandage securely in place.
7. Keep the patient calm and quiet.
8. Treat for shock if signs and symptoms are present.

R. Give three special considerations for the treatment of an open chest injury.

1. Apply an occlusive dressing.
2. Administer oxygen if not already done.
3. Position of comfort if no spinal injuries suspected.

S. Give three special considerations for the treatment of an open abdominal wound. (evisceration)

1. Do not touch or try to replace organs.
2. Cover exposed organs and wound with a sterile dressing, moistened with sterile water or saline, and secure in place.
3. Flex patient's hips and knees, if uninjured, to reduce stress on abdomen.

T. Give five special considerations in the treatment of an impaled object.

1. Do not remove the object, unless it is through the cheek and compromising the airway, it would interfere with chest compressions, or interferes with transport.
2. Manually secure the object.
3. Expose the wound area.
4. Control bleeding.
5. Utilize a bulky dressing to help stabilize the object.

U. Give five considerations for the care of an amputated part prior to re-attachment.

1. Wrap the amputated part in a dry sterile dressing.
2. Wrap or bag the dressed amputated part in plastic and keep cool.
3. Transport the amputated part with the patient.
4. Do not complete partial amputations.
5. Immobilize partial amputations to prevent further injury.

V. Give two special concerns for an open neck injury.

1. May cause air embolism.
2. Excessive bleeding difficult to control.

W. Give two special considerations in the treatment of an open neck injury.

1. Cover with a sterile occlusive dressing.
2. Compress carotid artery only if necessary and as a last resort to control bleeding.

5.04 Burns

A. Give three classifications of burns according to depth/degree.

1. Superficial / first degree.
2. Partial thickness/ second degree.
3. Full thickness / third degree.

B. Give three characteristics of a superficial burn.

1. Involves only the dermis.
2. Reddened skin.
3. Pain at the site.

C. Give four characteristics of a partial thickness burn.

1. Involves both the epidermis and the dermis, but does not involve underlying tissue.
2. Intense pain.
3. White to red skin that is moist and mottled.
4. Blisters.

D. Give five characteristics of a full thickness burn.

1. Burn extended through all the dermal layers and may involve subcutaneous layers, muscle, bone or organs.
2. Skin becomes dry and leathery and may appear white, dark brown or charred.
3. Loss of sensation, little to no pain.
4. Hard to the touch.
5. May have pain at the periphery.

E. Give two measuring devices to help determine area of burn.

1. Size of patient's hand is equal to 1% of total body surface area.
2. Rule of nines.

F. List the six percentage areas according to the rule of nines for an adult.

1. Head and neck-9%.
2. Each upper extremity-9%.
3. Anterior trunk-18%.
4. Posterior trunk-18%.
5. Each lower extremity-18%.
6. Genitalia-1%.

G. List the six percentage areas according to the Rule of Nines for an infant.

1. Head and neck-18%.
2. Each upper extremity-9%.
3. Anterior trunk-18%.
4. Posterior trunk-18%.
5. Each lower extremity-14%.
6. Genitalia-1%.

H. Give four body locations that increase the severity of the burn.

1. Face / upper airway.
2. Hands.
3. Feet.
4. Genitalia.

I. Give two pre-existing conditions that may increase the severity of the burn.

1. Less than 5 years of age.
2. Greater than 55 years of age.

J. List seven criteria for determining a critical burn.

1. Full thickness burns involving the hands, feet, face or genitalia.
2. Burns associated with respiratory injury.
3. Full thickness burns covering more than 10% of the body surface area.
4. Partial thickness burns covering more than 30% of the body surface area.
5. Burns complicated by painful, swollen, deformed extremity.
6. Moderate burns in young children or elderly patients.
7. Burns encompassing any body part i.e. arm, leg, or chest.

K. List three criteria for determining a moderate burn.

1. Full thickness burns of 2% to 10% of the body surface area excluding hands, feet, face, genitalia, and upper airway.
2. Partial thickness burns of 15 to 30% of the body surface area.
3. Superficial burns of greater than 50% body surface area.

L. List two criteria for determining minor burns.

1. Full thickness burns of less than 2% of the body surface area.
2. Partial thickness burns of less than 15% of the body surface area.

M. List the 10 basic steps for treatment of burns.

1. Stop the burning process, initially with water or saline.
2. Remove smoldering clothing and jewelry.
3. Body substance isolation.
4. Continually monitor the airway of evidence of closure.
5. Prevent further contamination.
6. Cover the burned area with a dry sterile dressing.
7. Do not use any type of ointment, lotion or antiseptic.
8. Do not break blisters.
9. Transport.
10. Know the local protocols for transport to appropriate local facility.

N. List nine considerations when dealing with burns in children and infants.

1. They have greater surface area in relationship to the total body size.
2. Greater surface area results in greater fluid and heat loss.
3. Any full thickness burn or partial thickness burn greater than 20%, or burn involving the hands, feet, face, airway or genitalia is considered to be a critical burn.
4. Any partial thickness burn of 10 to 20% is considered a moderate burn.
5. Any partial thickness burn of less than 10% is considered a minor burn.
6. They have a higher risk for shock.
7. They have a higher risk for airway problems.
8. They have a higher risk of hypothermia.
9. Must consider possibility of child abuse.

O. List the five sources of burns.

1. Thermal.
2. Chemical.
3. Electrical.
4. Light.
5. Radiation.

P. List five sources of thermal burns.

1. Flame.
2. Radiation.
3. Steam.
4. Hot liquids.
5. Hot objects.

Q. List three sources of chemical burns.

1. Acids.
2. Bases.
3. Caustics.

R. List three sources of electrical burns.

1. Alternating current.
2. Direct current.
3. Lightning.

S. List two sources of light burns.

1. Intense light sources.
2. Ultraviolet light (includes sunlight).

T. List two sources of radiation burns.

1. Nuclear sources.
2. Ultraviolet light.

U. List six steps in treating chemical burns.

1. Protect yourself (scene safety).
2. Wear gloves and eye protection.
3. Brush off dry powders prior to flushing.
4. Flush with large amounts of water ASAP.
5. Continue flushing during transport to receiving facility.
6. Do not contaminate uninjured areas while flushing.

V. List five considerations for treatment of electrical burns.

1. Do not attempt to remove patient from the electrical source unless trained to do so.
2. If the patient is still in contact with the electrical source or you are unsure, do not touch the patient.
3. Monitor patient closely for respiratory and cardiac arrest.
4. Injuries are often more severe than external indications.
5. Treat soft tissue injuries associated with the burn, and look for both entrance and exit wounds.

5.05 Dressings and Bandages

A. List three functions of a dressing.

1. Stop bleeding.
2. Protect the wound from further damage.
3. Prevent further contamination and infection (should be sterile).

B. List four types of dressings.

1. Universal dressing.
2. 4 x 4 inch gauze pads.
3. Adhesive type dressing.
4. Occlusive dressing.

C. List a purpose for a bandage.

1. Hold dressings in place.

D. List five types of bandages.

1. Self-adherent bandages.
2. Gauze rolls.
3. Triangular bandages.
4. Adhesive tape.
5. Air splint.

5.06 Musculoskeletal Care

A. List the function of the muscular system.

1. Provide movement of the skeletal system.

B. List four functions of the skeletal system.

1. Support.
2. Protection of vital organs and other soft structures.
3. Blood cell production.
4. Storage of essential minerals.

C. List the seven bone groupings of the spinal column.

1. Cervical C1-C2.
2. Thoracic T1-T12.
3. Lumbar L1-L5.
4. Sacral S1-S5 fused.
5. Coccyx (four tail bones) fused.

D. List the five bones or groupings of the thorax.

1. Ribs.
2. Sternum.
3. Clavicle.
4. Scapula.
5. Spinal Column.

E. List the six bones and bone groups of the upper extremities.

1. Humerus.
2. Radial.
3. Ulna.
4. Carpals.
5. Metacarpals.
6. Phalanges.

F. List the seven bones and bone groups of the lower extremities.

1. Femur.
2. Tibia.
3. Fibula.
4. Patella.
5. Tarsals.
6. Metatarsals.
7. Phalanges.

G. List the three mechanisms of injury to a bone.

1. Direct force.
2. Indirect force.
3. Twisting force.

H. List two types of bone/joint injuries.

1. Open.
2. Closed.

I. Define an open injury.

1. A break in the continuity of the skin.

J. Define closed injury.

1. No break in the continuity in the skin.

K. List eight signs and symptoms of a bone/joint injury.

1. Deformity or angulations.
2. Pain.
3. Tenderness.
4. Grating (crepitus).
5. Swelling.
6. Bruising (discoloration).
7. Exposed bone ends.
8. Joint lock in position.

L. Explain the five steps in the emergency medical care of bone or joint injury.

1. Body substance isolation.
2. Administer oxygen if not already done and is indicated.
3. After life threats have been controlled, splint injuries in preparation for transport.
4. Apply ice pack to the affected area to help reduce pain and swelling.
5. Elevate the extremity.

M. Explain seven reasons for splinting.

1. Prevent motion of bone fragments; bone ends or angulated joints.
2. Minimize damage to muscles, nerves, or blood vessels caused by broken bones.
3. Minimize the conversion of a closed fracture to an open fracture.
4. Minimize the restriction of blood flow as a result of bone ends compressing blood vessels.
5. Minimize pain associated with the movement of bone ends.
6. Minimize the possibility of paralysis of extremity due to a damaged spine.
7. Minimize bleeding due to tissue damage caused by one ends.

N. Explain the 10 general rules of splinting.

1. Assess pulse, motor, and sensation distal to the injury prior to, and following splint application and document findings.
2. Immobilize the joint above and below the injury.
3. Remove or cut away clothing.
4. Cover open wounds with a sterile dressing.
5. If there is a severe deformity or the distal extremity is cyanotic or lacks pulses, align with gentle traction before splinting.
6. Do not intentionally replace the protruding bones.
7. Pad each splint to prevent pressure and discomfort to the patient.
8. Splint the patient before moving when feasible and no life threat.

9. When in doubt, splint the injury if no life threats.
10. If patient has signs of shock, align in a normal anatomic position and transport. (total body immobilization).

O. List the five types of splints.

1. Rigid splints.
2. Traction splints.
3. Pneumatic splints (air or vacuum).
4. Improvised splints (pillow, newspaper, etc.).
5. Pneumatic Anti Shock Garment.

P. Explain the five hazards of improper splinting.

1. Compression of nerves, tissues and blood vessels from the splint.
2. Delay in transport of a patient with life threatening injury.
3. Splint applied too tight on the extremity reducing distal circulation.
4. Aggravation of the bone or joint injury.
5. Cause of aggravate tissue, nerve, vessel or muscle damage from excessive bone or joint movement.

Q. List the eight procedures for long bone splinting.

1. Body substance isolation.
2. Apply manual traction.
3. Assess pulse, motor and sensory function.
4. If there is a severe deformity or the distal extremity is cyanotic or lacks pulses, align with gentle traction prior to splinting.
5. Apply splint immobilizing the bone and joint above and below the injury.
6. Secure entire injured extremity.
7. Immobilize hand/foot in position of function.
8. Reassess pulse, motor, and sensation before and after application of splint and document findings.

R. List the six procedures for splinting a joint.

1. Body substance isolation.
2. Apply manual stabilization.
3. Align with gentle traction if distal extremity is cyanotic or lacks pulses and no resistance is met.
4. Immobilize the site of injury.
5. Immobilize bone above/below site of injury.
6. Assess pulse, motor and sensation before and after application of the splint and document findings.

S. Explain indication for use of traction splint.

1. A painful, swollen, mid-thigh (femur fracture) with no joint or lower leg injury.

T. Explain six contra-indications for the use of a traction splint.

1. Injury is close to the knee.
2. Injury to the knee exists.
3. Injury to the hip.
4. Injury to the pelvis.
5. No lower leg or ankle injury.
6. Partial amputation or avulsion with the bone separation, distal limb is connected only by marginal tissue.

U. Explain the 15 steps of the traction splint procedure.

1. Assess pulse, motor, and sensation distal to the injury and document.
2. Body substance isolation.
3. Perform manual stabilization.
4. Apply manual stabilization of the injured leg.
5. Apply manual traction—required when using a bi-lateral traction splint.
6. Prepare/adjust splint to proper length.
7. Position splint under injured leg.
8. Apply proximal securing device (ischial strap).
9. Apply distal securing device (ankle strap).
10. Apply manual traction.
11. Position/secure support straps.
12. Re-evaluate proximal /distal securing devices.
13. Reassess pulses, motor, sensation distal to the injury after application of the splint and document.
14. Secure torso to the long board to immobilize hip.
15. Secure splint to the long board to prevent movement of splint.

5.05 Injuries to the head and spine

A. List the two sub-systems of the nervous system.

1. Central nervous system.
2. Peripheral nervous system.

B. List the two components of the central nervous system.

1. Brain.
2. Spinal cord.

C. List three components of the peripheral nervous system.

1. The pairs of nerves that enter and exit the spinal cord between each pair of vertebrae.
2. The 12 pairs of cranial nerves that travel from the brain without passing through the spinal cord.
3. All other motor and sensory nerves.

D. List the function of the central nervous system.

1. Controls all basic bodily functions, and responds to external changes.

E. List five involuntary functions of the autonomic nervous system.

1. Heart rate.
2. Breathing.
3. Control of vascular diameter in relation to blood pressure.
4. Control of the round sphincter muscles closing the bladder and bowel.
5. Digestion.

F. List the two functions of the skeletal system as it relates to the nervous system.

1. Skull-surrounds and protects the brain.
2. Vertebral column surrounds and protects the spinal cord.

G. List six types of injures to the spine.

1. Compression.
2. Excessive flexion.
3. Excessive extension.
4. Extensive rotation.
5. Lateral bending.
6. Distraction.

H. Give three sources of compression injuries.

1. Falls.
2. Diving accidents.
3. Motor vehicle accidents.

I. Give three sources of excessive flexion, extension, rotation and lateral bending injuries.

1. Motor vehicle accident rear or front collision.
2. Motor vehicle accident side impact.
3. Contact sports.

J. Give a source of a distraction injury.

1. Hanging.

K. Name nine mechanisms of injury that would lead to a high index of suspicion of a spinal injury.

1. Motor vehicle crashes.
2. Pedestrian/vehicle collision.
3. Falls.
4. Blunt trauma.
5. Penetrating trauma to head, neck, or torso.
6. Motorcycle crashes.
7. Hangings.
8. Diving accidents.
9. Unconscious trauma patient.

L. Identify nine signs and symptoms of a potential spinal injury.

1. Tenderness in the area of the injury.
2. Patient complains of pain with movement.
3. Pain independent of movement and palpation.
4. Obvious deformity of the spine upon palpitation.
5. Soft tissue injuries associated with trauma around the spine.
6. Numbness, weakness or tingling in the extremities.
7. Loss of sensation or paralysis below the suspected level of injury.
8. Loss of sensation or paralysis in the upper or lower extremities.
9. Incontinence.

M. List the 10 steps in assessing a potential responsive spine injured patient.

1. Mechanism of injury.
2. Ask does your neck or back hurt.
3. Ask what happened.
4. Ask where it hurts.
5. Ask if they can move their hands and feet?
6. Ask if they can feel you touching their fingers?
7. Ask if they can feel you touching your toes?
8. Inspect for contusions, deformities, lacerations, punctures, penetrations, and swelling.

9. Palpate for tenderness and deformity.
10. Assess equality of strength of extremities (hand grip, gentle push feet against hands).

N. Define the four steps in accessing an unresponsive patient with potential of a spinal injury.

1. Mechanism of injury.
2. Inspect for contusions, deformities, lacerations, punctures, penetrations, and swelling around head and spine.
3. Palpate for areas of tenderness or deformity.
4. Obtain information from bystanders as to patient's condition prior to EMT-B's arrival.

O. List four complications of a spinal injury.

1. Inadequate breathing effort.
2. Paralysis.
3. Body temperature regulation difficulty.
4. Blood pressure regulation.

P. Explain the 13 steps of medical care of a supine spinal patient.

1. Body substance isolation.
2. Establish and maintain in-line immobilization.
3. Perform initial assessment.
4. Assess pulse in all extremities.
5. Assess motor/sensation of all extremities.
6. Assess the cervical region and neck.
7. Apply properly sized rigid cervical device.
8. Log roll patient onto side and inspect posterior body.
9. Log roll patient onto long spine board while maintaining in-line immobilization.
10. Pad voids between patient and long spine board to maintain neutral position.
11. Immobilize patient's torso and extremities to the long spine board.
12. Immobilize patient's head to the long spine board.
13. Reassess pulses, motor/sensation and document.

Q. List the six steps to immobilize a sitting patient with cervical immobilization in place, using a short spine board or KED.

1. Position device behind patient.
2. Secure device to patient's torso.
3. Evaluate and pad space behind patient's head to maintain a neutral position.
4. Secure patient's head to the device.
5. Slide a long spine board under patient's buttocks.
6. Rotate patient and lower onto long spine board and secure.

R. Explain the consideration for a rapid extrication.

1. Patient has critical injuries and any delay could cause greater percent of mortality.

S. Explain why a scalp injury may bleed profusely.

1. The scalp has many blood vessels.

T. Give a reason why you would not use direct pressure to control bleeding from a scalp wound.

1. If there is a suspected skull fracture, direct pressure could force bone fragments into the brain.

U. Explain the six steps to immobilize a standing patient with cervical immobilization device already in place.

1. Position device behind patient.
2. Have one rescuer on each side of patient and one at patient's feet.
3. The rescuers on both sides of the patient reach with the hand closest to the patients under the arm to grasp the board, and use the hand farthest from the patient to secure the head.
4. Once the position is assured, they place the leg closest to the board behind the board and begin to tip the top backward.
5. The rescuer at the foot of the board secures the board and the patient to prevent them from sliding, and the board is brought into a level horizontal position.
6. Secure patient to long spine board.

5.08 Skull/Brain Injuries

A. Define open skull injuries.

1. Open skull injury is when the skull is fractured and the overlying scalp is lacerated.

B. Define closed skull injuries.

1. Closed skull is injury the cranium is in tact but the scalp is lacerated.

C. Explain the two classifications of brain injuries.

1. Direct injuries to the brain can occur in open head injuries, with the brain being lacerated, punctured or bruised by the broken bones or foreign objects.
2. Indirect injuries to the brain may occur with either open or closed head injuries. The shock of impact on the skull is transferred to the brain leading to concussions and contusions.

D. List eights and symptoms of a possible skull injury.

1. Mechanism of truma.
2. Contusions.
3. Lacerations.
4. Hematomas to the scalp.
5. Deformity to the scalp.
6. Blood or CSF (cerebrospinal fluid) leaking form the nose and ears.
7. Bruising (Raccoon eyes) around the eyes.
8. Bruising (Battle Signs) behind the ears.

E. Explain 18 signs and symptoms of a patient with a possible skull fracture and or brain injury.

1. Altered or deteriorating mental status (confusion, disorientation, repetitive questioning, or irritable).
2. Unresponsive.
3. Irregular breathing pattern.
4. Deformity of windshield.
5. Deformity of helmet.
6. Contusions.
7. Lacerations.
8. Hematomas.
9. Cerebrospinal fluid leaking from ears and or nose.
10. Battle signs.
11. Raccoon eyes.

12. Neurological disability.
13. Nausea.
14. Vomiting.
15. Unequal pupil size with altered mental status.
16. Seizure activity.
17. Increased blood pressure and decreased pulse rate (Cushing's syndrome).
18. Impaired hearing (ringing in ears).

F. Explain the 10 basic steps for the treatment of a patient with a possible skull fracture and or brain injury.

1. Body substance isolation.
2. Maintain airway.
3. Oxygen.
4. Provide artificial ventilation's if indicated.
5. Suspect spinal injury and immobilize.
6. Closely monitor airway, breathing, pulses, and mental status for deterioration.
7. Controls bleeding with direct pressure unless skull fracture is suspected then use loose dressings.
8. If a medical injury or non-traumatic injury exists, place patient on the left side.
9. Be prepared fro changes in patient's condition.
10. Immediate transport of the patient.

5.09 Spinal Equipment

A. Identify three indications for the use of a cervical spine immobilization device.

1. Any suspected injury to the spine based on mechanism of injury.
2. Any suspected injury to the spine based on history or signs/symptoms.
3. Use in conjunction with short and long spine boards.

B. Identify five considerations when sizing a rigid cervical immobilization device.

1. Various types of devices exist. Sizing is based on the specific design of the device.
2. An improperly sized immobilization device has a potential for further injury.
3. Do not obstruct airway with the placement of a cervical immobilization device.
4. If it does not fit, use a rolled up towel and tape to the board and manually support the head.
5. An improperly fit device will do more harm than good.

C. Explain two precautions when using a rigid cervical immobilization device.

1. Cervical immobilization devices alone do not provide adequate in-line immobilization.
2. Manual immobilization must always be used with a cervical immobilization device until the torso then head is secured to the board.

D. List two types of short boards.

1. Vest type devices (KED).
2. Rigid short board.

E. List two indications for the use of a short backboard.

1. Provide stabilization and immobilization to the head, neck, and torso.
2. Used to immobilize sitting patients with suspected spinal injuries.

F. List the 13 steps in the application of a short board.

1. Start manual in-line immobilization.
2. Assess pulses, motor and sensory function in all extremities and document.
3. Assess the cervical area.
4. Apply a cervical immobilization device.
5. Position short board immobilization device behind the patient.
6. Secure the device to the patient's torso.
7. Evaluate torso and groin fixation and adjust as necessary.
8. Evaluate and pad behind patients head as necessary to maintain neutral in-line immobilization.
9. Secure the patients head to the device.
10. Release manual immobilization of the head.

11. Rotate or lift patient to the long spine board.
12. Immobilize to the long board.
13. Reassess, pulses, motor and sensory functions in all extremities and document.

G. Explain the 10 basic steps in the application of a long spine board.

1. Start manual in-line immobilization.
2. Assess pulses, motor and sensory function in all extremities and document.
3. Assess the cervical area.
4. Apply a proper fitted cervical immobilization device.
5. Position the long spine board along side of the patient.
6. Move the patient onto the long spine board using a log roll, suitable lift, and slide or scoop stretcher.
7. Assess voids and pad as needed to maintain neutral position. (adults under head and torso and in infants and young children under the shoulders to the toes to head size).
8. Immobilize torso to the board using straps across the chest, pelvis, and lower extremities and adjust as needed.
9. Immobilize patients head to the board.
10. Reassess pulses, motor sensation of all extremities and document.

H. List four considerations for using rapid extrication.

1. Unsafe scene.
2. Unstable patient condition warrants immediate movement and transport.
3. Patients block the EMT-Basic's access to another, more seriously injured, patient.
4. Rapid extrication is based on time and the patient, and not the EMT-B's preference.

I. Explain special considerations when performing spinal immobilization on an infant or child.

1. Pad from the shoulders to the heels of the infant or child, if necessary to maintain neutral immobilization.
2. Properly size the cervical immobilization device.
3. If you can get a proper fit with a cervical immobilization device, use a rolled up towel, shape into a horseshoe, place around patient's head and secure to board.
4. An improperly fitted cervical immobilization device will do more harm than good.

J. Explain three special assessment needs for patients wearing helmets.

1. Airway and breathing.
2. Fit of the helmet and patient's movement within the helmet.
3. Ability to gain access to airway and breathing.

K. Explain five indications for leaving the helmet in place.

1. Good fit with little or not movement of the patients head within the helmet.
2. No impending airway or breathing problems.
3. Removal would cause further injury to the patient.
4. Proper spinal immobilization could be performed with helmet in place.
5. No interference with the EMT-B's ability to assess and reassess patient's airway and breathing.

L. Explain five indications for removing the helmet from a patient.

1. Inability to assess and/or reassess airway and breathing.
2. Restriction of adequate management of the airway or breathing.
3. Improperly fitted helmet allowing for excessive patient head movement within the helmet.
4. Proper spinal immobilization cannot be performed due to helmet.
5. Cardiac arrest.

M. Give examples of three types of helmets.

1. Sports.
2. Motorcycle.
3. Other (fire/rescue).

N. Give two characteristics of sports helmets.

1. Typically open anteriorly.
2. Easier access to airway.

O. List two types of motorcycle helmets.

1. Full face.
2. Open face with possible shield.

P. Explain the nine general rules for the removal of a helmet.

1. The technique for removal of a helmet depends on the actual type of helmet worn by the patient.
2. Take the eyeglasses off before removal of the helmet.

3. One EMT-B stabilizes the helmet by placing his hands on each side of the helmet with the fingers on the mandible to prevent movement.
4. Second EMT loosens the strap.
5. The second EMT places one hand on the mandible at the angle of the jaw and the other hand posteriorly at the occipital region.
6. The EMT holding the helmet pulls the sides apart and gently slips the helmet halfway off the patient's head and then stops.
7. The EMT maintaining stabilization of the neck repositions slides the posterior hand superiorly to secure the head from flailing back after complete helmet removal.
8. The helmet is removed completely.
9. The EMT than can proceed with Spinal immobilization as indicated in the spinal immobilization section.

6.0 Infants and Children

I. Number of tasks to master = 211

II. Intended outcome: Given the information in this module about infants and children, the student will perform the following tasks with 85% accuracy on the didactic examination.

III. Tasks:

6.01 Infants and Children

A. List six developmental concerns associated with providing care for the newborn and infant child (birth to 1 year of age).

1. Minimal stranger anxiety.
2. Fear of separation from parents or caregiver.
3. Fear of the oxygen mask.
4. Can lose body heat easily.
5. Respiratory effort and rate are best obtained without direct contact.
6. Auscultate before the child becomes agitated.

B. List 10 developmental concerns associated with providing care for the toddler (1 to 3 years of age).

1. Fear of separation from parents or caregiver.
2. Stranger anxiety.
3. Do not like to be touched (Note: These concerns may not apply to all toddlers).
4. Fear of needles.
5. Fear of pain.
6. Do not like to have clothing removed.
7. Are easily frightened by initial stimulation around face.
8. Fear of the oxygen mask.
9. Can be easily distracted.
10. May believe that the injury or illness is a form of punishment.

C. List 10 developmental concerns associated with providing care for the preschooler (3-6 years of age).

1. They may take things literally.
2. They have vivid imaginations.
3. They fear of separation from parents or caregiver.
4. They may not like to be touched by strangers.
5. They are modest.
6. They are afraid of blood.
7. They are afraid of pain.

8. They may fear permanent injury.
9. They are aware of death.
10. They may still believe that the injury or illness is a form of punishment.

D. List 10 developmental concerns associated with providing care for the school aged patient (6-12 years of age).

1. Are usually more cooperative.
2. Are able to rationalize.
3. Are curious.
4. Have a basic understanding of their bodies.
5. Fear of blood.
6. Fear of pain.
7. Fear of permanent disfigurement and injuries.
8. They are becoming more modest (self conscious).
9. May regress emotionally.
10. Fear of death.

E. List eight developmental concerns associated with providing care for the adolescent (12-18 years of age).

1. Are developing abstract thinking skills.
2. They are becoming more modest (self-conscious).
3. Fear of permanent injury or disfigurement.
4. Think that they are invincible and may take risks.
5. May be reluctant to disclose pertinent information regarding health history.
6. May be emotionally volatile (excessive mood swings).
7. May find that the presence of a peer, friend or family member is reassuring.
8. They want to be treated as an adult.

F. Describe 11 anatomical and physiological concerns and differences.

1. Small airways throughout the respiratory system are easily blocked by secretions and airway swelling.
2. Tongue is large relative to small mandible and can block the airway in an unconscious child.
3. Positioning the airway is different in infants and children.
4. Infants are obligate nose breathers.
5. When ill or injured, children can compensate in their breathing for short periods of time.
6. Children’s skin surface is large compared to their body mass.
7. Their heads are proportionately larger than adults.
8. Their ribs are more pliable.

9. They have faster metabolic rates than an adult resulting in faster use of oxygen from the bloodstream.
10. Their circulating blood volume is less than adults.
11. Their abdominal musculature is not as well developed as an adult's.

G. Explain the nine steps for pediatric airway opening and maintenance procedure.

1. Determine if illness or injury.
2. If ill, open the airway with head-tilt, chin-lift.
3. If injured, use jaw thrust with spinal immobilization.
4. Look in mouth for FBAO.
5. If obstructed, remove obstruction or suction patient.
6. If suctioning, select the appropriate size catheter and measure depth with the appropriate technique.
7. Look, listen and feel for breathing.
8. If not breathing, breathe for the patient using current AHA guidelines.
9. Check for pulse.

H. Describe two forms of oxygen delivery.

1. Non-rebreathers.
2. Blow by techniques.

I. Identify 15 points of assessment to help achieve a general impression of the health of a child from overall appearances.

1. Assess mental status.
2. Effort of breathing.
3. Color.
4. Quality of cry/speech.
5. Interaction with environment and significant others.
6. Appropriate behavior for age of child.
7. Movement.
8. Attentive or non-attentive.
9. Eye contact.
10. Recognizes significant others.
11. Responds to verbal stimulation
12. Emotional state.
13. Response to the EMT-B.
14. Body positioning or tone.
15. Assessment.

J. Identify seven important points in the hands on approach to infant or child assessment.

1. Assess breath sounds.
2. Assess circulation.
3. Blood pressure.
4. Skin color.
5. Skin temperature.
6. Skin turgor.
7. Detailed physical exam.

K. Describe nine signs of early respiratory distress.

1. Nasal flaring.
2. Retractions.
3. Intercostal.
4. Supraclavicular.
5. Subcostal.
6. Accessory muscles.
7. Stridor.
8. Audible wheezes.
9. Grunting.

L. Identify seven signs that may present with any of the signs of early respiratory distress that indicate a worsening condition.

1. Respiratory rate less than 60.
2. Cyanosis.
3. Decreased muscle tone.
4. Severe use of accessory muscles.
5. Poor peripheral perfusion.
6. Altered mental status.
7. Increased grunting.

M. Describe three assessment considerations in pediatric poisonings.

1. Common cause for ambulance call.
2. Gather as much information as possible about suspected poison.
3. Bring container of suspected poisons to receiving facility.

N. Identify six assessment considerations when a patient has a fever.

1. A common cause for pediatric ambulance calls.
2. Rarely is life threatening.
3. How quickly the fever spikes is more concern than how high the fever is.
4. Fever with a rash is potentially serious.
5. Seizures may occur.
6. Dehydration is a common cause of fever.

O. Describe nine signs and symptoms of pediatric shock.

1. May occur suddenly.
2. Rapid respiratory rate.
3. Pale, cool, clammy skin.
4. Weak or absent peripheral pulses.
5. Delayed capillary refill.
6. Decreased urinary output.
7. Sunken fontanels.
8. Altered mental status.
9. Absence of tears.

P. Define sudden infant death syndrome (SIDS).

1. This occurs between one month and one year of age, most frequently between two and four months. The cause is unknown and babies are usually found early in the morning.

Q. Describe 11 assessment considerations of SIDS patient.

1. Physical appearance of baby.
2. Position of baby in crib.
3. Physical appearance of crib.
4. Unusual or dangerous objects in crib.
5. Appearance of room.
6. Circumstances surrounding discovery of child.
7. Time baby was put to sleep.
8. General health of baby.
9. Problems at birth.
10. Any recent illnesses.
11. Last physical exam.

R. List four considerations while providing emergency medical care.

1. Attempt to resuscitate unless rigor mortis is present.
2. Parents may display emotional distress, grief or imagined guilt.
3. Avoid any comments that may suggest blame to the parents.
4. Avoid false reassurance.

S. List 12 common patterns of injury.

1. Trauma is number cause of death in infants and children.
2. Motor vehicle accidents.
3. Unrestrained children have head and neck injuries.
4. Restrained children have abdominal and or lumbar injuries.
5. Children struck while riding a bicycle have head, spinal and abdominal injuries.
6. Children struck by a motor vehicle have head, chest, lower extremity and abdominal injuries with possible internal bleeding.
7. Falls from heights yield head and neck injuries.
8. Diving into shallow water yields head and neck injuries.
9. Burns tend to be more severe.
10. Smoke inhalation will cause swelling of the airway more quickly than adults.
11. Sports injuries tend to cause head and neck injuries.
12. Head and extremity and internal organ injuries are most frequently seen with child abuse.

T. Identify five considerations when assessing the head.

1. Head injury in the pediatric patient is common because of the relatively large size of head.
2. Children are likely to sustain head injury along with internal injuries.
3. Most common cause of hypoxia is tongue obstructing the airway.
4. Open the airway by using a modified jaw thrust.
5. Do not use sandbags to stabilize the head because the weight on child's head may cause injury if the board needs to be turned for emesis.

U. Describe two concerns related to assessment of the chest.

1. Infants and children have soft pliable ribs and are less likely to suffer rib fractures but more likely to suffer internal damage.
2. There may be significant injuries without external signs.

V. Identify five factors important to the assessment of the abdomen.

1. A more common site of injury in children than adults.
2. Often a source of hidden injury.
3. Always consider abdominal injury in the multiple trauma patients who are deteriorating without external signs.
4. Consider any trauma to the abdomen a serious injury.
5. Air in the stomach can distend abdomen and may interfere with artificial ventilation efforts.

W. Describe five different types of children with special needs.

1. Premature babies with lung disease.
2. Babies and children with heart disease.
3. Infants and children with neurological disease.
4. Children with chronic disease or altered function from birth.
5. Children with traumatic brain injury.

X. List five complications with tracheostomy tubes.

1. Obstruction.
2. Bleeding.
3. Air leak.
4. Dislodged.
5. Infection.

6.01 Pediatric Abuse

A. Define the term child abuse.

1. Improper or excessive action so as to injure or cause harm to a child.

B. Define the term child neglect.

1. Giving insufficient attention or respect to someone who has a claim to that attention.

C. List 11 signs and symptoms of abuse.

1. Multiple bruises in various stages of healing.
2. Injury inconsistent with mechanism described.
3. Repeated calls to the same address.
4. Fresh burns.
5. Small burns to the hands, face, feet, or abdomen from cigarettes or cigars.
6. Caregivers seem inappropriately unconcerned.

7. Conflicting stories.
8. Child is fearful of describing how the injury occurred.
9. Caregivers complain of irrelevant problems unrelated to the injury.
10. Human bite marks.
11. Bruises or lacerations with a pattern.

D. List four signs and symptoms of sexual abuse.

1. Discharge from the vagina or penis, perhaps associated with an STD.
2. Lacerations indication vaginal and/or rectal penetration.
3. Semen on clothing or body.
4. Bruising on genitalia.

E. List the nine signs and symptoms of neglect.

1. Lack of adult supervision.
2. Malnourished appearing child.
3. Unsafe living conditions.
4. Untreated chronic illness.
5. Delay in reporting injuries.
6. Poor hygiene.
7. Severe insect infestation.
8. Lack of medical attention for serious injuries.
9. Repeated calls to the same residence.

F. Identify the most lethal type of abuse.

1. Central nervous system injuries (shaken baby syndrome).

G. Identify 12 medical and legal considerations.

1. Avoid accusation and confrontation in the field, it only delays transport.
2. Bring objective information to the receiving facility.
3. Avoid taking the child's history in front of the caregivers.
4. Do not leave the child alone with the suspected abuser.
5. Take a history from the caregivers separately from the child.
6. Document statements made by all parties involved.
7. Document condition of the home.
8. Document behavior of caregivers.
9. Patterns of injuries.
10. Location of injuries.
11. Reporting is required by law.
12. Be objective, report only what you see and hear, not what you think.

7.0 Operations

I. Number of tasks to master = 144

II. Intended Outcome: Given the information in this module about ambulance operations, the student will perform the following tasks with 85% accuracy on the didactic examination.

III. Tasks:

7.01 Ambulance Operations

A. List the 11 phases of an ambulance call.

1. Preparation for the call.
2. Dispatch.
3. En Route.
4. Arrival at scene.
5. Transferring the patient to the ambulance.
6. En route to the receiving facility.
7. At receiving facility.
8. En route to station.
9. At receiving facility.
10. En route to station.
11. Post run.

B. List the 12 types of medical equipment needed to be carried on the ambulance.

1. Basic supplies.
2. Patient transfer equipment.
3. Airways.
4. Suction equipment.
5. Artificial ventilation devices.
6. Oxygen inhalation equipment.
7. Cardiac compression equipment.
8. Basic wound care supplies.
9. Splinting supplies.
10. Childbirth supplies.
11. Medications.
12. Automated external defibrillator.

C. List the 17 steps of inspecting the vehicle systems during the daily inspection.

1. Fuel.
2. Oil.
3. Engine cooling system.
4. Battery.
5. Brakes.
6. Wheels and tires.
7. Headlights.
8. Stoplights.
9. Turn signals.
10. Emergency warning lights.
11. Wipers.
12. Horn.
13. Siren.
14. Doors closing and latching.
15. Communication system.
16. Air conditioning/heating system.
17. Ventilation system.

D. List the five pieces of information given to the EMT-Basic from dispatch information.

1. Nature of call.
2. Name, location, and callback number of caller.
3. Location of patient.
4. Number of patients and severity.
5. Other special problems.

E. List the five characteristics of good ambulance operators.

1. Physically fit.
2. Mentally fit.
3. Able to perform under stress.
4. Positive attitude about abilities.
5. Tolerant of other drivers.

F. List seven “authorized emergency vehicles” according to the Idaho Code.

1. Vehicles operated by any fire department.
2. Vehicles operated by law enforcement agency of the state of Idaho or any political subdivision of the state.
3. Ambulances.
4. Vehicles belonging to personnel of voluntary fire departments while in performance of official duties.
5. Sheriff’s search and rescue vehicles.

6. Wreckers which are engaged in motor vehicle recovery operations.
7. Other emergency vehicles designated by the director of the department of law enforcement.

G. Define the type of audible warning device needed for an authorized emergency vehicle according to Idaho Code #49-623.

1. The exemptions granted to an authorized emergency or police vehicle shall apply when necessary to warn and to make use of an audible signal having a decibel rating of at least 100 at a distance of 10 feet.

H. Define the type of warning lights needed for an authorized emergency vehicle according to Idaho Code #49-623.

1. The exemptions granted to an authorize emergency or police vehicle shall apply when necessary to warn and make use of a flashing light visible in a 360 degree arc at a distance of 1000 feet under normal atmospheric conditions.

I. List the six steps the EMT-Basic should take en route to the receiving facility.

1. Notify dispatch.
2. On-going assessment should be continued.
3. Obtain additional vital sign measurements.
4. Notify receiving facility.
5. Reassure patient.
6. Complete pre-hospital care reports.

7.02 Gaining access

A. Identify the number one priority for all EMS personnel at the scene of an extrication.

1. Personal safety.

B. List the three steps of simple access.

1. Try opening each door.
2. Roll down windows.
3. Have patient unlock doors.

C. List the eight steps of removing the patient from a vehicle.

1. Maintain cervical spine stabilization.
2. Complete initial assessment.
3. Provide critical interventions.

4. Immobilize spine securely.
5. Move the patient, not the immobilization device.
6. Use sufficient personnel.
7. Choose path of least resistance.
8. Continue to protect patient from hazards.

7.03 Overviews

A. List five factors used when identifying the hazardous materials scene.

1. Occupancy.
2. Containers (size, shape).
3. Placards.
4. Shipping papers.
5. Senses.

B. List six general procedures the EMT-Basic can use at a hazardous materials scene.

1. Park upwind/uphill from the incident, safe distance.
2. Keep unnecessary people away from area.
3. Isolate the area.
4. Avoid contact with material.
5. Remove patients to a safe zone, if no risk to the EMT-Basic.
6. Do not enter a HazMat area unless you are trained as a HazMat Tech and have proper training in SCBA.

C. Define Multiple Casualty Situations (MCS)

1. An event that places a great demand on resources, be it equipment or personnel.

D. List six signs and symptoms of a high priority triage patient.

1. Airway and breathing difficulties.
2. Uncontrolled or severe bleeding.
3. Decreased mental status.
4. Patients with severe medical problems.
5. Shock.
6. Severe burns.

7.04 Incident Command System

A. Define Multiple Casualty Incident (MCI)

1. An incident that substantially draws down the local resources in the community and has a negative impact on local hospitals.

B. List the six stages of incident management.

1. Preplanning.
2. Initial Response.
3. Operations.
4. Stabilization.
5. Demobilization.
6. Termination.

C. List the three responsibilities of the incident command at major medical incidents.

1. The rescue of all victims.
2. Ensuring that patients are extricated, treated, and transported to medical facilities.
3. Stabilizing the incident and providing for life safety, accountability, and welfare of personnel.

D. Define unified command.

1. A standard method to coordinate command of an incident when multiple agencies have jurisdiction.

E. List the 10 responsibilities of a group supervisor.

1. Complete objectives assigned by the IC.
2. Account for all assigned personnel.
3. Ensure that operations are conducted safely.
4. Monitor work progress.
5. Redirect activities as necessary.
6. Coordinate actions with related activities.
7. Monitor the welfare of personnel.
8. Request additional resources as needed.
9. Provide the IC with essential and frequent progress reports.
10. Reallocate resources within the area of responsibility as needed.

F. List the seven functions of ICS.

1. Planning.
2. Directing.

3. Organizing.
4. Coordinating.
5. Communicating.
6. Delegating.
7. Evaluating.

G. List the four areas of general staff.

1. Operations.
2. Planning.
3. Logistics.
4. Finance.

H. List the 11 components of the initial on scene report.

1. Confirmation of the incident.
2. CP location.
3. Staging location and best access route.
4. Nature of incident.
5. Exposure property.
6. Potential for extension/expansion.
7. Number of patients presently on site.
8. Potential for additional patients.
9. Hazards identified as presently on site.
10. Responders presently operating.
11. Divisions/sectors established.

I. List the three groups normally assigned under command in a major medical incident.

1. Triage.
2. Treatment.
3. Transportation.

J. List the three positions of command staff under the IC.

1. Information officer.
2. Safety officer.
3. Liaison officer.

7.05 Extrication

7.06 HazMat awareness